Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Canceled)

2. (Currently amended) The method according to ~~claim 1~~ claim 4, further comprising the step of:

selecting said performance characteristic to be a transfer characteristic.

3. (Currently amended) The method according to ~~claim 1~~ claim 4, further comprising the step of:

selecting said parameter from the group consisting of an incident radio frequency signal, a reflected radio frequency signal, and a transmitted radio frequency signal.

4. (Currently amended) A method for dynamically optimizing radome performance, comprising the steps of:

sensing at least one parameter defining a performance characteristic of said radome; ~~The method according to claim 1, further comprising the step of:~~

selecting said parameter from the group consisting of a reflection coefficient, a transmission coefficient, a radome temperature, a polarization of incident waves, and an angle of wave incidence; and

responsive to said sensing step, selectively varying at least one electrical characteristic of said radome to dynamically modify said performance characteristic.

5-6. (Canceled)

7. (Currently amended) A method for dynamically optimizing radome performance, comprising the steps of:

sensing at least one parameter defining a performance characteristic of said radome;

responsive to said sensing step, selectively varying at least one electrical characteristic of said radome to dynamically modify said performance characteristic;

varying said electrical characteristic by application of an energetic stimulus to said radome; and ~~The method according to claim 6, further comprising the step of:~~

selecting said energetic stimulus from the group consisting of an electrical stimulus, a photonic stimulus, a magnetic stimulus, and a thermal stimulus.

8. (Currently amended) The method according to ~~claim 1~~ claim 4, further comprising the step of:

varying said electrical characteristic for only a selected portion of said radome.

9-10. (Canceled)

11. (Currently amended) A radome, comprising:

a radome comprised of a dome wall, at least a portion of said dome wall comprised of magnetic material;

a sensor sensing at least one parameter defining a performance characteristic of said radome; and, a control system responsive to said sensor that selectively varies at least one electrical characteristic of said radome to dynamically modify said performance characteristic; ~~The radome according to claim 10,~~

wherein said magnetic material includes at least one material selected from the group consisting of a ferroelectric material, a ferromagnetic material, a ferrite, and a liquid crystal polymer.

12. (Currently amended) The radome according to ~~claim 9~~ claim 11, wherein said sensor senses a radio frequency energy.

13. (Currently amended) A radome, comprising:

a radome;

a sensor sensing at least one parameter defining a performance characteristic of said radome; and,

a control system responsive to said sensor that selectively varies at least one electrical characteristic of said radome to dynamically modify said performance characteristic; ~~The radome according to claim 9,~~

wherein said parameter sensed by said sensor is selected from the group consisting of a reflected radio frequency energy, transmitted radio frequency energy, a radome temperature, a polarization of incident waves, and an angle of wave incidence.

14. (Currently amended) A radome, comprising:

a radome;

a sensor sensing at least one parameter defining a performance characteristic of said radome; and,

a control system responsive to said sensor that selectively varies at least one electrical characteristic of said radome to dynamically modify said performance characteristic;~~The radome according to claim 9,~~

wherein said electrical characteristic is selected from the group consisting of a permittivity, a permeability, a loss tangent, and a reflectivity.

15. (Currently amended) The radome according to ~~claim 9~~ claim 14 wherein said control system further comprises a control processor configured to determine at least one control action based in part upon said parameter.

16. (Currently amended) The radome according to ~~claim 9~~ claim 14 wherein said electrical characteristic is varied in response to an energetic stimulus.

17. (Currently amended) A radome, comprising:

a radome;

a sensor sensing at least one parameter defining a performance characteristic of said radome; and,

a control system responsive to said sensor that selectively varies at least one electrical characteristic of said radome to dynamically modify said performance characteristic, said electrical characteristic varied in response to an energetic stimulus;

~~The radome according to claim 16,~~

wherein said energetic stimulus is selected from the group consisting of an electrical stimulus, a photonic stimulus, a magnetic stimulus, and a thermal stimulus.

18. (Previously presented) A method for dynamically optimizing radome performance, comprising the steps of:

sensing at least one parameter defining a performance characteristic of said radome;

responsive to said sensing step, selectively varying at least one electrical characteristic of said radome to dynamically modify said performance characteristic;

selectively varying said electrical characteristic from the group consisting of a permittivity, a permeability, a loss tangent, and a reflectivity.

19. (Previously presented) The method according to claim 18, further comprising the step of:

selecting said performance characteristic to be a transfer characteristic.

20. (Previously presented) The method according to claim 18, further comprising the step of:

selecting said parameter from the group consisting of a reflection coefficient, a transmission coefficient, a radome temperature, a polarization of incident waves, and an angle of wave incidence.

21. (Previously presented) The method according to claim 18, further comprising the step of:

varying said electrical characteristic by application of an energetic stimulus to said radome.